What is claimed is:

1. A spin driven resistor comprising:

a magnetic body having a resistance and a resonance frequency, said resistance capable of changing in response to an applied magnetic field while in the presence of an electromagnetic field;

two wires, each said wire in electrical communication with said magnetic body; and

a voltage source in electrical communication with each said wire so as to place a potential across said magnetic body, wherein said magnetic body reaches a maximum value of change in resistance when said magnetic body is subjected to an externally applied magnetic field while in the presence of an externally applied electromagnetic field.

2. The spin driven resistor according to claim 1 wherein said magnetic body comprises a material selected from the group consisting of metallic and semi-conducting magnets.

3. The spin driven resistor according to claim 1 wherein said magnetic body comprises vanadium di-tetracyanoethanide.

4. The spin driven resistor according to claim 1 wherein said spin driven resistor is subjected to said externally applied electromagnetic field while at a constant temperature.

5. The spin driven resistor according to claim 1 wherein said spin driven resistor is subjected to said externally applied magnetic field while at a constant temperature.

6. The spin driven resistor according to claim 1 wherein said externally applied magnetic field is an externally applied direct-current magnetic field.

7. The spin driven resistor according to claim 1 wherein said externally applied electromagnetic field comprises microwave radiation.

8. The spin driven resistor according to claim 7 wherein said microwave radiation has a power in the range of about 1 mW to about 25 mW.

9. The spin driven resistance according to claim 1 wherein said maximum value of change in resistance increases as said electromagnetic field increases in power.

10. The spin driven resistance according to claim 1 wherein said maximum value of change in resistance decreases as temperature increases.